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EXAMINER	
AFZALI, SARANG	

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte AKIRA YAMAMOTO and KAZUYOSHI UMEDA

Appeal 2009-003404
Application 10/809,934
Technology Center 3700

Decided: September 10, 2009

Before JENNIFER D. BAHR, STEVEN D.A. McCARTHY and KEN B. BARRETT, *Administrative Patent Judges.*

McCARTHY, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

The Appellants appeal under 35 U.S.C. § 134 (2002) from the Examiner's decision finally rejecting claim 4 under 35 U.S.C. § 102(b) (2002) as being anticipated by Chung (US 4,082,180, issued Apr. 4, 1978; and finally rejecting claims 4 and 5 under § 102(b) as being anticipated by

Fannin (US 6,447,336 B1, issued Sep. 10, 2002).[1] We have jurisdiction under 35 U.S.C. § 6(b) (2002).

We REVERSE.

Claim 5 depends from claim 4. Claim 4 recites:

> 4. A motorized roller comprising:
>
> a roller body of the motorized roller;
>
> a motor disposed inside the roller body;
>
> a reducer which is disposed inside the roller body, and reduces the rotation of the motor; and
>
> a rotor which is disposed inside the roller body, and connected with the reducer and the roller body to transmit power of the reducer to the roller body, wherein
>
> the roller body comprises a first roller body and a second roller body, and
>
> an axial end section of a second roller body side of the first roller body and an axial end section of a first roller body side of the second roller body are connected at a power transmission section between the rotor and the roller body.

Chung describes a pulley including a "cylindrical rim" *30* and two end discs *32*, *34* secured to the cylindrical rim *30*. (Chung, col. 2, ll. 6-11). Chung's pulley also includes a gear reducer *42* and a reducer output shaft *112* rigidly secured to the end disc *32*. (Chung, col. 2, ll. 11-14 and col. 2, l. 65 – col. 3, l. 3).

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[1] A rejection of claim 4 under § 102(b) as being anticipated by Agnoff (US 5,088,596, issued Feb. 18, 1992) was withdrawn in the Examiner's Answer. (Ans. 2-3). The Examiner objects to claim 6, but indicates that the subject matter of the claim is allowable.

A first issue on which this appeal turns is:

> Have the Appellants shown that the Examiner erred in finding that Chung's gear reducer *42* is a reducer; that Chung's shaft *112* is a rotor; that Chung's cylindrical rim *30* is a first roller body; that Chung's end plate *32* is a second roller body; and that Chung discloses the first roller body and the second roller body connected at a power transmission section between the rotor and the roller body? (*See* Reply Br. 10; Ans. 3-4).

Figure 2 of Chung depicts the end disc *32* as being secured to the cylindrical rim *30* so that the outer peripheral surface of the end disc *32* is adjacent the inner peripheral surface of the cylindrical rim *30*. Assuming for purposes of this appeal only that Chung's cylindrical rim *30* is a first roller body and Chung's end plate *32* is a second roller body, Chung's first and second roller bodies are connected at the outer peripheral surface of the end disc *32*.

Chung's shaft *112* is affixed in a tapered bushing *114* disposed in a hub *116*. The hub *116* is rigidly secured to the end disc *32*. (Chung, col. 2, l. 65 – col. 3, l. 3). Power is transmitted from the shaft *112* to the combination of the end disc *32* and the cylindrical rim *30* at the section occupied by the tapered bushing *114* and the hub *116*. (*See* Chung, col. 3, ll. 3-4 (disclosing that the shaft *112* drives the pulley *12*) and fig. 2). Assuming for purposes of this appeal only that Chung's gear reducer *42* is a reducer; that Chung's shaft *112* is a rotor; that the combination of Chung's cylindrical rim *30* and end plate *32* is a roller body, the power transmission section between the rotor and the roller body (that is, the section where power is transmitted from the shaft *112* to the end plate *32*) is the section

occupied by the tapered bushing *114* and the hub *116* near the inner peripheral surface of the end plate *32*.

Figure 2 of Chung depicts the tapered bushing *114* and the hub *116* as occupying a space or section separated from the outer peripheral surface of the end disc *32* by the radial extent of the end disc *32*. Assuming for purposes of this appeal only that Chung's gear reducer *42* is a reducer; that Chung's shaft *112* is a rotor; that Chung's cylindrical rim *30* is a first roller body; that Chung's end plate *32* is a second roller body, the power transmission section between the rotor and the roller body is spaced from the connection between the first and second roller bodies. The Appellants have shown that the Examiner erred in finding that Chung discloses a first roller body and a second roller body connected at a power transmission section between the rotor and the roller body.

Fannin discloses a motorized conveyor pulley *80* including an "outer tube" *88* and outer plates *104*, *108*. The outer tube *88* and the outer plates *104*, *108* encase a gear train *84*. (Fannin, col. 4, ll. 9-11 and 34-44). Figure 4 of Fannin depicts the outer plate *104* secured to an outer ring *89* by a plurality of bolts at an axial end section of the end plate *104*. (*See also* Fannin, col. 4, ll. 44-45). The outer ring *89* is secured to the outer tube *88* by a plurality of bolts. (*Id.*)

A second issue on which this appeal turns is:

> Have the Appellants shown that the Examiner erred in finding that Fannin's gear train *84* is a reducer; that Fannin's outer ring *89* is a rotor; that Fannin's outer tube *88* is a first roller body; that Fannin's outer plate *104* is a second roller body; and that Fannin's rotor is connected with the reducer and the roller body

to transmit power of the reducer to the roller body? (*See* Reply Br. 13; Ans. 4).

The gear train *84* includes a ring gear *92*. The ring gear *92* is secured to the outer plate *104* via a mounting plate *102* by a plurality of fasteners *105*. (Fannin, col. 4, ll. 19-22). Fannin discloses that the ring gear *92* transfers energy through the mounting plate *102* to the outer plate *104*. (Fannin, col. 4, ll. 56-57). The outer plate *104* drives the outer tube *88* (Fannin, col. 4, ll. 58-61), necessarily through the outer ring *89*.

Assuming for purposes of this appeal only that Fannin's gear train *84* is a reducer; that Fannin's outer ring *89* is a rotor; that Fannin's outer tube *88* is a first roller body; and that Fannin's outer plate *104* is a second roller body, Fannin does not disclose a direct connection between the rotor and the reducer. Fannin's ring gear *92* transfers power to the outer plate *104* and Fanning's outer plate *104* transfers power to the outer ring *89*. Although both Fannin's outer ring *89* and Fannin's ring gear *92* (which is a component of the gear train *84*) are connected to the outer plate *104*, Fannin discloses no direct connection between the outer ring *89* and the ring gear *92* in the sense of being connected to transmit power of the gear train *84* to the roller body *88*, *104*. In other words, the Appellants have shown that the Examiner erred in finding that Fannin discloses a rotor connected with a reducer and a roller body to transmit power of the reducer to the roller body.

DECISION

We REVERSE the Examiner's decision rejecting claims 4 and 5.

REVERSED

Klh

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